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ABSTRACT

This study used data from the national study of the Cooperative Institutional Research Program (CIRP) to investigate the impact of college on income, educational aspirations, and educational attainment for students from low socioeconomic status (SES) backgrounds compared to those from high-SES backgrounds. The study was based on concepts of cultural capital and habitus developed by Pierre Bourdieu (1977, 1990, 1994). Data from CIRPs 1985 Freshmen Survey, the 1989 Follow-Up Survey, and the 1994 Follow-Up Survey resulted in a sample of 12,000 subjects that responded to all 3 surveys. The second part of the research used stepwise regression analysis to determine variables associated with graduate school attendance for all students, low-SES students, and high-SES students. The analyses showed that 9 years after entering college, students from low SES backgrounds had lower levels of income, educational attainment, educational aspirations, and graduate school attendance than their peers from high SES backgrounds. Race had no significant impact nor did college selectivity for low SES groups. Selectivity of college did impact educational aspirations for high SES groups. (Contains 64 references.) (JLS)

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College and Class Status: The Effect of Social Class Background on College Impact and Outcomes.

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Introduction

Students from low-socioeconomic (SES) families have been a part of American higher education since its earliest days, and have, in more recent times, become a focus of policymakers. Yet, despite historical presence and current importance, research on this group of college and university students has been scant. This study proposes to examine the impact of college on outcomes for low-SES students.

A college education was seen as a means of escape and a pathway toward social mobility in colonial times and the early 19th century for low-SES students (Allmendinger, 1975; Trow, 1992), a sentiment that became ingrained in the American dream (Karabel, 1972; Karabel and Astin, 1975; DiMaggio and Mohr, 1985; Pascarella and Terenzini, 1991; Trow, 1992). In part because of the belief in education as a means for social mobility, and in part because of the belief in education as essential for economic growth, students from low-SES backgrounds became a focus of public policymakers following World War II (Trow, 1992). Beginning with the G.I. Bill, an entitlement for former soldiers, substantial public funding has been directed toward low-SES students in an effort to ensure access to educational resources (Karen, 1991). Currently, however, many scholars believe that threats to financial aid availability may be closing off access for low-SES students, and are urging policymakers to renew their financial commitment to this population (Mortenson, 1990; Orfield, 1992; Breneman, 1995).

Simultaneously, there are attacks on affirmative action in many quarters which means that although race and gender preferences are increasingly less viable in the college and university admissions process, considerations of parental income and SES status may increase in salience because most policymakers agree that low-SES students are disadvantaged. While SES can not and should not compensate for gender and racial discrimination (Hacker, 1992), these trends in aid availability and in defining disadvantage illustrate that knowledge about the impact of college environments on students from differing social class backgrounds can become more important in the future.

Typically, the unit of comparison in studies of social mobility is the class location the individual would have occupied without a college education. College students from low-SES backgrounds, then, gain in relation to where they would have been if they had joined the workforce directly after high school. Another unit of comparison, infrequently used, is investigating the social locations of upwardly-mobile students in relation to those of high-SES students. Low-SES students and high-SES students should have similar outcomes, controlling for ability and institutional quality, if the system is meritocratic or if social-class disadvantage weakens as students advance through the educational system.

If the low-SES students have lower postsecondary outcomes than the high-SES students, perhaps their social class background continues to negatively impact their achievement, despite equivalent attainment. In a society that believes in education as a means of social mobility, an investigation into the postsecondary outcomes of low-SES students compared to their high-SES peers could be more informative than an intergenerational investigation. Scholars have pointed out the potential of focusing on relative social-class gains instead of the more common absolute gains investigated in intergenerational studies (Jackman and Jackman, 1983). In response, this longitudinal study investigates the impact of college on income, educational aspirations, and educational attainment for students from low-SES backgrounds compared to those from high-SES backgrounds.

Literature Review and Theoretical Framework

Students from low-SES backgrounds have lower educational aspirations, persistence rates, and educational attainment than do their peers from high-SES backgrounds prior to and during college (Jencks et. al., 1972; Sennett and Cobb, 1973; Rubin, 1976; DiMaggio and Mohr, 1985; MacLeod, 1987; Hassan and Reynolds, 1988; Pascarella and Terenzini, 1991; Astin, 1993; Lareau, 1993; Boatsman, 1995). The differences begin at a young age, are cumulative, result from many forces including individual agency, and are shaped by SES differences such as parental interaction styles

and expectations, school structure, and school experiences and expectations (Clark, 1960; Cicourel and Kitsuse, 1963; Sennett and Cobb, 1973, Rubin, 1976; Tyack, 1976; Bernstein 1977, 1982; Kohn, 1977; Willis, 1977; Hoffnung and Sack, 1981; Apple, 1982; Hogan, 1982; Astin, 1984, 1985, 1993; Halle, 1984; Cookson and Persell, 1985; Gaskell, 1985; Lareau, 1987, 1993; MacLeod, 1987; Kozol, 1991; McDonough, 1991; Boatsman, 1995).

Parental expectations and definitions of success vary with social status as well, and mediate student aspirations. Low-SES parents are more likely to view a high-school diploma as the norm for their children than are high-SES parents, to whom a bachelor's or advanced degree is considered the norm (Sennett and Cobb, 1973; Rubin, 1976; Willis, 1977; Halle, 1984; MacLeod, 1987; Lareau, 1987, 1993). Low-SES parents are also more likely to define success as a secure full-time job after graduating from high school, with no firm expectation of college attendance for their youngsters (Rubin, 1976, Lareau, 1987, 1993). College attendance to these parents often means enrolling in a community college or technical school (Rubin, 1976). For high-SES parents, the definition of success for their children is tightly tied to four years of college attendance, and more recently, attendance at a "good" college (Rubin, 1976; Lareau, 1987, 1993; McDonough, 1991, forthcoming).

There are, however, low-SES students that do attend college after graduating from high school, but in the four-year period following high school they are less likely to persist to a Bachelor's degree or to aspire to a graduate degree (Astin, 1975, 1993; Boatsman, 1995). Students from low-SES backgrounds often enroll in institutions positioned lower in the stratified higher education system instead of enrolling in institutions which have been found to influence positively aspirations and persistence (Karabel, 1972; Astin, 1975a; Karabel and Astin, 1975; Bowles and Gintis, 1976; Hoffnung and Sack, 1981; Astin, 1985; Karen, 1991; Hassan and Reynolds, 1988; Astin, 1993; Boatsman, 1995).

Experiences and involvement in college have also been found to influence students' aspirations and persistence (Astin, 1984, 1993; Tinto, 1987; Pascarella and Terenzini,

1991; Boatsman, 1995). However, new research has found that low-SES students were less likely to participate in student clubs and organizations, have contact with faculty or to visit them in their homes than were their high-SES peers (Walpole, 1996). These results suggest that low-SES students have few of the environmentally-linked inducements that raise attainment.

Thus, low-SES students run a gauntlet of obstacles on their way to and through college, resulting in negative consequences for their educational aspirations, persistence, and attainment. The effects begin in elementary school, and continue into the college environment for the low-SES students who are, by ability, luck, hard work, and possibly sponsorship, able to enroll in a college or university. For those from low-SES backgrounds who are able to persist to graduation and receive their bachelor's degree, though, questions remain including: what are their post-college outcomes, including income, educational aspirations and educational attainments compared to their high-SES peers?

Research into the differential effect of college on low-SES students has revealed mixed and inconsistent data on income and occupational status (Watchtel, 1975; Bowles and Gintis, 1976; Jencks, et. al., 1979, Katchadourian and Boli, 1994), or have not adequately isolated the effects of SES and college impact (Hoffnung and Sack, 1981; Zweigenhaft, 1993; Boatsman, 1995). Watchtel (1975) as well as Bowles and Gintis (1976) found that college graduates from higher-SES backgrounds have higher incomes and overall socioeconomic statuses than those from low-SES backgrounds. These findings were contradicted by Jencks, et. al. (1979), who found no such differences in his work on several different samples. However none of these studies had data available which followed students for nine years after they enrolled in college as this study does. A different body of research has also found that low-SES students have lower attainment, aspirations, and persistence than high-SES student, but has utilized the work of Pierre

Bourdieu to direct their research designs, to study different variables, and to explain their findings.

Cultural Capital Models

Bourdieu (1977, 1990, 1994) uses the concepts of cultural capital and habitus to explain the ways in which individual agency combines with socially-structured opportunities and aspirations to reproduce the existing social structure. A Bourdieuian framework is significant because it incorporates socio-cultural factors and individual agency to explain the reproduction of existing social structures. In addition to economic capital, each social class possesses social and cultural capital, which parents pass on to their children as attitudes, preferences, and behaviors that are invested for social profits (Lamont and Lareau, 1988). People from the same social class often have common perceptions of goals and strategies for attaining the social profits they desire, identified as a person's habitus (Bourdieu, 1977; McDonough et al., 1996). Additionally, Bourdieu (1977) claims that group conflict is the greatest within, but at the margins of, a single status group, and that low or declining economic capital will increase the importance of cultural capital in group membership.

Educators differentially value high-status cultural capital, rewarding the students from higher-SES backgrounds who possess this capital, leaving those students with low-status cultural capital at-risk for lower success rates in schools. The habitus of a student from a low-SES background would lead that student to have lower aspirations as well as predispose students to utilize educational strategies that may not be as successful in attaining the desired social profits. Thus, the student could make choices that will result in a maintenance of their lower social position. At the same time, however, habitus has a dynamic component and an individual can adopt new elements as a result of new experiences, historical changes in the material environment, exposure to another individual's habitus, or associating with people who originate from a different habitus, all of which are possible in the college environment (Harker, 1984; Lamont and Lareau,

1988). This means that a low-SES student can learn to make different choices, choices that could facilitate social mobility.

Scholars have additionally suggested that the importance of cultural capital may be greater for the upwardly mobile (DiMaggio, 1982; DiMaggio and Mohr, 1985; Zweigenhaft, 1993). Acquiring high-status cultural capital may be a prerequisite for joining the upper-class, and upwardly mobile individuals who exhibit such an acquisition may be highly rewarded in the educational system (Ibid.). It has also been posited that socially mobile working-class students may exchange their working-class cultural capital, rather than simply adding the new high-status capital (Harker, 1984).

Education in this framework is most useful for its conversion potential. Scholars have shown that educational decisions and choices are made within the context of one's habitus in an attempt to accumulate capital that can be converted at a future date in pursuit of educational and occupational gains (MacLeod, 1987; Lareau, 1987, 1993; McDonough, Antonio, 1996; McDonough, Antonio, Horvat, 1996). Research has shown the effects of cultural capital on aspirations, persistence and attainment at multiple locations in the educational system (DiMaggio, 1982; DiMaggio and Mohr, 1985; Gaskell, 1985; MacLeod, 1987; Lareau, 1987, 1993; Weis, 1990; McDonough, 1991; Zweigenhaft, 1993; McDonough, Antonio, 1996; McDonough, Antonio, Horvat, 1996). These studies provide evidence that family background and cultural capital have a significant impact on educational aspirations, persistence, and attainment from the earliest schooling experiences, through high school, to college, and extending beyond college. In studying the process of social mobility, cultural capital is an important piece to consider. It is possible, and indeed probable, that in a college environment there are many methods of obtaining cultural capital which impact future outcomes. Exploring the extent and process of this acquisition and its impact on outcomes is an important question, and one that this study investigates.

McDonough, Antonio, and Horvat (1996) modeled the college-choice decision based on a student's expectation that college is both a time to reinvest previously

accumulated cultural capital and a time to accumulate additional cultural capital useful for conversion in future educational and occupational attainment. Extending this model, students would be expected to continue to accumulate capital while in college in order to convert it to economic capital upon leaving college or in order to reinvest it by choosing to attend graduate school. Students from low-SES backgrounds would be expected to show different patterns of investment and conversion than those students from high-SES backgrounds. Those patterns of investment and conversion are empirically tested in this longitudinal study of students who first entered college in 1985 by investigating the income, educational attainment, and educational aspirations nine years after college entry.

Design

This study utilized data from the national study of the Cooperative Institutional Research Program (CIRP) sponsored by the Higher Education Research Institute (HERI) at UCLA and the American Council on Education. Specifically, the study used the 1985 Freshman Survey, the 1989 Follow-Up Survey, and the 1994 Follow-Up Survey, yielding a sample of approximately 12,000 subjects that responded to all three surveys. The sample was restricted to four year institutions, and the SES in 1985 was determined using parental income, educational attainment, and occupational prestige (Nakao and Treas, 1994). The lowest and highest quintiles were utilized as sub-samples defining students from low- and high-SES backgrounds. Each sub-sample consisted of approximately 2000 students.

The study methodology utilized three sections. The first was descriptive information to determine the extent to which students from low-SES backgrounds' investment in attending college paid off. The questions were: What are their income levels, educational attainments, and educational aspirations compared to those of their high-SES peers. Crosstabulations of student outcomes comparing low-SES and high-SES students were performed and will be discussed. These outcome measures included 1994 income, educational attainment, educational aspirations, and graduate school attendance. In order to compare characteristics of the national population, weighted data was used in the

crosstabulations, and the size of the samples reflect the weighted data. Results of the crosstabulations are shown in table 1.

The second segment of the design utilized stepwise logistic regression to determine variables associated with graduate school attendance for all students, low-SES students, and high-SES students. Graduate school attendance was an appropriate dependent variable choice because in a Bourdieuian framework, capital accumulated in educational settings is converted to maximize social and economic profits, and attending graduate school would be both a conversion of previously accumulated capital and a reinvestment to continue capital accumulation. Logistic regression was an appropriate choice given that the dependent variable, graduate school attendance, was dichotomous (1- did not attend graduate school, 2- attended graduate school) (Hosmer and Lemeshow, 1989; Menard, 1995). Twenty-eight independent variables were fit to the regression in four temporally-ordered blocks: (1) background block which included race, gender, SAT scores, and SES; (2) institutional characteristics block, consisting of institution type and selectivity; (3) college investment block, containing activities in the college environment; and (4) college conversion block, which included future plans (see appendix A for all variables and blocks). The blocking was utilized in order to determine the effects of a variable block after controlling for the earlier blocks. Prior to the blocks of variables, the student's 1985 degree aspirations was forced into the regression equation as a pre-test variable. Listwise deletion resulted in sample sizes of 6470 for all students, 1177 for low-SES students, and 1402 for high-SES students. The odds ratios for the three groups of students are shown in table 2 for the entering independent variables.

Finally, stepwise logistic regressions were run again with attended graduate school as the dependent variable, but in the final case every variable that had entered the equation for all students, low-SES students, or high-SES students was forced one variable at a time into two equations in order to more accurately compare the low-SES and high-SES students and to more fully understand the interactions between variables for the two

groups. Eliminating variables that did not enter the earlier regressions changed the sample sizes slightly, resulting in a sample of 1179 for low-SES students and 1406 for high-SES students. The odds ratios for each of the independent variables for these regression equations are shown in table 3.

Crosstabulation Results

Nine years after entering college, students from low-SES backgrounds have lower levels of income, educational attainment, educational aspirations, and graduate school attendance than their peers from high-SES backgrounds.

Insert Table 1 About Here

Overall, income for students from low-SES backgrounds in 1994 is lower than the income of students from high-SES backgrounds. With the exception of those reporting incomes of less than $10 thousand per year, students from low-SES backgrounds have incomes under $40 thousand per year at higher rates and incomes over $40 thousand per year at lower rates than their high-SES peers. One of the possible reasons that students from high-SES backgrounds report an income of less than $10 thousand per year in higher numbers may include that they are more likely to be in graduate school than their low-SES peers.

Additionally, three-way crosstabulations revealed that for those working full-time, students from low-SES backgrounds are more likely to report income under $30 thousand and less likely to report income between $50 to $75 thousand than their peers from high-SES backgrounds. Among students who reported having attended graduate school, students from low-SES backgrounds are less likely to report incomes of $50 to $75 thousand than those from high-SES backgrounds.

Educational attainment also shows an effect of socioeconomic origins. Those students from low-SES backgrounds have lower attainment beyond the bachelor's degree than those students originating from high-SES backgrounds. Students from high-SES

backgrounds were more likely to have earned a MA, MD, or JD by 1994 than those students from low-SES backgrounds. The overall rate of Ph.D. completion was so low (<1% of the entire sample), that it was not included in the degree earned description. Degree aspirations, however, indicate that students from low-SES backgrounds in many cases desire a similar attainment, at least for Masters and Ph.D.s, as their peers from high-SES backgrounds, but their aspirations toward MD and JD degrees are lower than those from high-SES backgrounds. For those students currently enrolled in graduate school, the students from low-SES backgrounds report working on their Masters degrees at higher levels and working on their Ph.D.s, MDs, or JDs at lower levels than do students from higher SES backgrounds. Finally, students from high-SES backgrounds report attending graduate school at higher levels than do students from more humble origins.

The implications of these findings are simply that despite graduating from high school and enrolling in a four-year college or university, the outcomes for low-SES students continue to be lower than their high-SES peers who have traversed a similar educational path. Moreover, given the differences in degree attainment, aspirations, and graduate school attendance, low-SES students may fall further behind their high-SES peers in the future. From a Bourdieuian perspective, the low-SES students are displaying a different habitus than their high-SES peers. Students from high-SES backgrounds are converting the capital accumulated in college into graduate school attendance at higher rates while students from low-SES backgrounds are converting their capital into membership in the workforce at higher rates.

Regression Results

Overall race has no significant impact. Table 2 shows the odds ratio for each of the independent variables that entered the equation for all students, students from low-SES backgrounds, and students from high-SES backgrounds. The first set of regression equations indicates that overall, socioeconomic status is a powerful predictor of graduate

school attendance, and that the college environment has a different impact for predicting graduate school attendance on low-SES students than it does on high-SES students.

Insert Table 2 About Here

For all students and students from high-SES backgrounds, 1985 degree aspirations significantly increased the likelihood of attending graduate school, unlike students from low-SES backgrounds. Although 1985 degree aspirations were significant when the variable entered for low-SES students, its predictive power disappeared once the college investment variables and the college conversion variables entered the equation. These 1985 degree aspirations were most significant in increasing the likelihood of graduate school attendance for all students ($p<.0001$), and less so, but nonetheless significant, for students from high-SES backgrounds ($p<.05$).

After forcing in 1985 degree aspirations, the block of input characteristics entered the equation. In the input block, a higher-SES status significantly increased the probability of attending graduate school for all students. For students from low-SES backgrounds, being female was slightly significant and scoring highly on the SAT math test was significant for increasing the likelihood of attending graduate school. For students from high-SES backgrounds, none of the input characteristics were significant.

In the institutional characteristics block, the selectivity of the college or university, measured by average entering SAT score, significantly increased the probability of graduate school attendance for all students and students from high-SES backgrounds, but did not enter the equation for students from low-SES backgrounds. Attending a public university entered for decreasing the likelihood of attending graduate school for all students and for low-SES students, but in the end was not a significant predictor for either group. The significance in both cases was muted once the college investment variables entered.

Therefore the main effect of attending a public university may be that it decreases opportunities for capital investment through involvement with faculty and student activities.

In the college investment block more variables measuring activity and involvement within the campus environment entered the regression equation for students from low-SES backgrounds compared to all students and students from high-SES backgrounds. The variables which significantly increased the likelihood of low-SES students attending graduate school included working on a professor's research project, time spent talking to faculty outside class, participating in intercollegiate sports, and the college GPA. Assisting faculty with teaching and time spent in student clubs and groups both entered for low-SES students, but were not significant predictors. The differences between low-SES students and the other two groups in the college investment block may indicate an investment pattern that is distinct for students from low-SES backgrounds who attend graduate school, or may indicate a distinct habitus for socially mobile people, or may also indicate that elements of a high-SES habitus are somehow communicated to or learned by low-SES students through contact with faculty or student groups.

In contrast, for all students the variables working on a professor's research project, time spent studying, and the college GPA all significantly increased the probability of graduate school attendance, but talking to faculty outside of class, participating in intercollegiate sports, and assisting faculty with teaching did not enter the equation. For students from high-SES backgrounds, working on a professor's research project and the college GPA entered the equation, but only the GPA significantly increased the chances of a student attending graduate school. It is interesting that while college GPA was significant for all three groups, it was less so for students from high-SES backgrounds.

In the college conversion block, the 1989 plan to attend graduate school and having high degree aspirations in 1989 significantly increased the chances of attending graduate school for all three groups of students. For all students, the 1989 plan to attend college full-time in the next year and the degree earned in 1989 significantly increased the

likelihood, as did career reasons that were intrinsic, such as choosing a career because it was interesting, challenging, made a contribution to society, or allowed opportunities for freedom. Career reasons that were extrinsic, such as choosing a career because it pays well, because opportunities exist, or because there are opportunities for advancement decreased the likelihood of attending graduate school significantly.

For students from low-SES backgrounds, the career reasons also had a similar significant impact on the chances of attending graduate school. Of the two, only intrinsic reasons had a significant impact on students from high-SES backgrounds' chances of attending graduate school. For these students the 1989 plan to travel also had an impact. It significantly decreased the chances of a student attending graduate school by 1994.

These findings indicate that converting the capital accumulated in college into graduate school attendance and high degree aspirations displays an habitus that views graduate education as a reinvestment toward further capital accumulation. This is an element that has been found in a high-status habitus (McDonough, Antonio, Horvat, 1996). Findings from the crosstabulations indicated that this is a reinvestment favored by those from high-SES backgrounds, although low-SES students who attend graduate school have also learned to make a similar conversion, and may have acquired this element of habitus in the college environment. The findings regarding career orientation indicate that having an orientation toward work that is less instrumental and more autonomous and intrinsic may be another element in this habitus, a finding supported by previous research (Hoffnung and Sack, 1981; McDonough, Antonio, Horvat, 1996). The significance of planning to travel decreasing the likelihood of graduate school attendance by 1994 for only high-SES students may illuminate another cultural capital element for high-SES students. Traveling and experiencing different countries and cultures may be due to the anticipation or expectation that this knowledge will be utilized in the future to signal high-SES group membership.

The third section of the design again utilized stepwise logistic regression, but focused on comparing students from low- and high-SES backgrounds. Every variable that had entered any of the previous three regression equations was forced into an equation for low-SES students and an equation for high-SES students. This was done in order to directly compare the effect of each variable on the sub-samples of low- and high-SES students and to understand the interactions between variables that may differ between the two groups. As mentioned earlier in the paper, the sample sizes changed slightly from the blocked regressions to these unblocked equations due to differences in listwise deletion. Due to space constraints, all changes between the first set of regression equations and the second cannot be addressed in this paper. I will highlight and discuss the changes that are the most relevant.

The first difference, due to the change in sample size, was that for students from high-SES backgrounds 1985 degree aspirations were no longer significant. This is not a huge change, however, because the variable changed from significant to slightly insignificant. The next obvious difference was that when the variable SES entered the high-SES equation, it was significant and remained a significant predictor of graduate school attendance. This was not the case with the sub-sample of low-SES students, in which the variable never significantly increased the likelihood of attending graduate school. The reason this variable is significant for a sub-sample of high-SES students may be due to other, more direct, influences of cultural capital that are not measured or captured adequately by these variables.

Forcing in all the college investment variables yielded some interesting results. The first is that only three variables remained which significantly increased the likelihood of students from low-SES backgrounds attending graduate school. The first was working on a professor's research project, the second was participating in intercollegiate sports, and the third was college GPA. For the students from high-SES backgrounds, none of the

variables were significant, not even college GPA, which was highly significant for low-SES students.

The second interesting result was the interaction among variables in the low-SES group and the high-SES group. For the low-SES students all of the variables were significant when they entered the equation with the exception of time spent volunteering. Being a guest in a professor's home and assisting faculty with teaching lost most of their significance when the variable talking to faculty outside of class entered the equation. This indicated that the effect of being a guest in a professor's home or assisting them in teaching, for the low-SES student, was the opportunity to interact with faculty outside the classroom. Time spent studying became insignificant when college GPA entered the equation, time spent in student clubs became insignificant when the 1989 plan to attend graduate school entered the equation, and time spent talking to faculty outside class lost most of its significance when 1989 degree aspirations entered the equation. Time spent studying converts into raising the student's GPA, which then significantly increases the likelihood of attending graduate school, a relationship that seems fairly clear. It is less clear how time spent in student clubs and talking to faculty convert into plans to attend graduate school and higher degree aspirations, but it is a pattern in investment and conversion as indicated by the change in significance of the variables. These three interactions between investments and subsequent conversions highlight the ways in which some students from low-SES backgrounds make investments while in college that are converted into the potential for further reinvestment in graduate school.

This is different from the interactions for students from high-SES backgrounds. Being a guest in a professor's home was significant only until the next variable, working on a professor's research project, entered the equation. The significance of working on a professors research project dropped when college GPA entered the equation, and lost the remainder of its significance when the 1989 plan to attend graduate school entered. The variables assisting faculty with teaching a class, participating in intercollegiate athletics,

talking with faculty outside of class, volunteer work, and time spent in student clubs were not significant when they entered the high-SES equation. Time spent studying was significant until college GPA entered, and college GPA was significant until 1989 degree aspirations entered the equation.

For high-SES students, then, a different pattern of investment in the college environment and conversion is indicated. Working on a professor's research raises the student's GPA and converts directly into plans to attend graduate school. Time spent studying is also an investment which results in a higher GPA, and the investment made in the college environment to raise the GPA converts to higher degree aspirations. Therefore fewer variables in the college environment significantly increase the probability of graduate school attendance for high-SES students. Either variables in this equation do not capture the high-SES students investment in the college environment adequately, or, for high-SES students, investments made in the college environment have a less direct conversion into graduate school attendance, or graduate school attendance is less dependent on the college environment for high-SES students.

Discussion

From all of the data, it is apparent that the social status origins of a college student continue to affect his or her experience of and outcomes of college attendance. From a Bourdieuian perspective, these findings support the notion that students from low-SES backgrounds possess different cultural capitals and habiti than do other students, and that attending college does not necessarily indicate that a student has risen economically or socially to a level similar to his or her peers. So although many of these students are undoubtedly upwardly mobile compared to their parents, students from high-SES backgrounds continue to have an advantage. Students from low-SES backgrounds who attend four-year colleges and universities have lower incomes, lower levels of educational attainment, and lower levels of educational aspirations than do their peers from higher social strata nine years after college entry. Their ability to convert their college education

and experience into social and economic profits may be greater than that of their low-SES peers who did not attend college, but it is lower than their high-SES college peers. This may be due to differences in habiti which lead them to utilize different conversion strategies, such as working full-time after college instead of attending graduate school, which are not as successful in converting academic and cultural capital into economic and social profits.

Attending graduate school, one method of converting the cultural capital accumulated in college, is a strategy consistently utilized by high-SES students at higher rates. Attending graduate school is both a conversion and the beginning of further investment in capital accumulation. Low-SES students who do attend graduate school have learned this method of conversion and reinvestment, and since their 1985 degree aspirations do not significantly increase the likelihood of graduate school attendance, learning to utilize graduate school as conversion and further investment in many cases takes place within the college environment.

Students from low-SES backgrounds who attended graduate school by 1994 had a different investment strategy within the college environment than did students as a whole or high-SES students who similarly attended graduate school. These strategies included activities and engagement with faculty and other students that were later converted into higher grades, plans to attend graduate school, and higher degree aspirations. This is despite the fact that, as a whole, students from low-SES backgrounds report spending less time with faculty outside the classroom, studying fewer hours, and spending less time in student activities. These findings may indicate that low-SES students gain new elements of cultural capital and habitus through these contacts and activities. The finding may also indicate that the habitus of socially mobile students adapts to and incorporates elements of the college environment.

Conclusions/Significance

This study illustrated the continued capital accumulation and conversion processes that occur within and following college. Students from low-SES backgrounds do not follow the same patterns of college and post-college cultural capital accumulation and conversion as their high-SES peers, and as a result their income, educational attainment, and educational aspirations are lower, dampening their social mobility.

These results are significant because although students from low-SES backgrounds have been and will be the focus of policymakers, little is known about the impact and outcomes of college for these students. Such knowledge is increasingly important because the substantial investment of federal, state, and institutional financial aid to low-SES students may be threatened, and because policymakers are allowing income and SES to be considerations in the admissions process while banning preferences based on gender and race. The study contributes new insight into the impact and outcomes of students from low-SES backgrounds compared to those from high-SES backgrounds, providing needed information for policy considerations.

This study also contributes knowledge about elements in the college environment that can be utilized by students from low-SES backgrounds to continue their process of mobility. Administrators and student affairs officers can utilize these findings by encouraging low-SES students to get and remain involved with faculty and student groups in the campus environment.

Limitations/Implications

It is not clear how this acquisition of cultural capital and new elements of a student's habitus occurs in the interaction between students and faculty or between students and their participation in campus activities. It is also unclear if the acquisition has a long-term effect beyond graduate school attendance. It is also clear that not all elements of cultural capital for the high-SES students was adequately captured or measured in this model. This may be a limit of the dataset.

In examining educational attainment, it was not known what careers were envisioned by students who aspired to, worked toward, or attained graduate degrees. Other scholars have noted the differences between career choices of low and high-SES students (Hoffnung and Sack, 1981; Domhoff, 1983; McDonough, Antonio, Horvat, 1996). A master's degree may be utilized in a career as an elementary school teacher or in a career as a high-powered business executive. Such differentiation is an important piece to consider given the results obtained in the degree aspiration crosstabulations and one that I hope to address in future research. Also, given the finding regarding degree aspirations, students from low-SES backgrounds may have a different timeline for post-graduate educational attainment than their high-SES peers and future research may find it fruitful to investigate even longer-term outcomes for low-SES students to see when and if they are able to attain the degree to which they aspire.

Additionally, although institution type, selectivity, and degree earned in 1989 were controlled for, the link between attending a highly selective institution and continuing into graduate school is well established (Domhoff, 1983; Kingston and Smart, 1990; McDonough, Antonio, Horvat, 1996), and further research would do well to more closely control and account for the type of institution attended and its effect on graduate school attendance. In the same vein, more closely controlling for degree earned in 1989, academic ability, and drive to achieve while focusing on the effects of social class on college outcomes is another addition a for further research.

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Table 1: Crosstabulation Results of Student Outcomes

Students Who Reported:	% of Reported who were Low-SES (n=196,943)	% of Reported who were Hi-SES (n=185,595)
'94 Income <$10K	18	23
'94 Income $10-15K	24	22
'94 Income $15-20K	19	17
'94 Income $20-29K	22	14
'94 Income $30-39K	20	16
'94 Income $40-49K	10	24
'94 Income $50-59K	18	23
'94 Income $60-75	4	24
Work FT.-Income <$30K	24	15
Work FT.-Income $50-75K	13	24
Attended Grad. Sc.-Income $50-75K	9	29
Highest Degree earned '94- MA	19	27
Highest Degree earned '94- MD	10	39
Highest Degree earned '94-JD	6	43
Highest Degree planned '94-MA	18	18
Highest Degree planned '94-Ph.D.	22	21
Highest Degree planned '94-MD	15	33
Highest Degree planned '94-JD	9	30
Degree Working on '94-MA	21	18
Degree Working on '94-Ph.D.	6	29
Degree Working on '94-MD	18	33
Degree Working on '94-JD	10	31
Attended Graduate School	17	24

Table 2: Odds Ratios[1] for Blocked Logistic Regression DV= Attended Graduate School

Variable Name	All Students (n=6470)	Low-SES Students (n=1177)	High-SES Students (n=1402)
1985 Degree Aspirations	1.11*** (4.10)	1.08 (1.42)	1.14* (2.38)
Input Block			
African-American	1.28 (1.40)	N/A	N/A
Sex-Female	1.10 (1.50)	1.36* (1.99)	N/A
SAT Math	1.00 (1.50)	1.00* (2.12)	1.00 (1.77)
SAT Verbal	.999 (-.750)	N/A	1.00 (-.024)
SES	1.02*** (4.81)	N/A	N/A
Institutional Characteristics Block			
Public University	.865 (-1.95)	.953 (-.275)	N/A
Selectivity	1.004*** (4.66)	N/A	1.00* (2.28)
Peer SES	N/A	1.01 (.330)	N/A
College Investment Block			
Guest in Profs. Homes	1.06 (1.05)	N/A	N/A
Worked on Prof.'s Research	1.31** (3.71)	1.61* (2.64)	1.11 (.654)
'89 hpw studying	1.07* (3.17)	N/A	N/A
'89 hpw volunteer	1.01 (.787)	N/A	N/A
'89 hpw student clubs	1.03 (1.94)	1.04 (.959)	N/A
'89 hpw talk to fac. out. class	N/A	1.18* (2.14)	N/A
Participated in intercoll. sports	N/A	1.66* (2.96)	N/A
Assisted fac. in teaching	N/A	1.25 (1.09)	N/A
College GPA	1.33*** (8.18)	1.36*** (4.07)	1.18* (2.09)
College Conversion Block			
'89 Plan to attend grad. sch.	14.35*** (3.69)	10.88*** (10.02)	21.15*** (9.59)
'89 Plan to attend college FT	1.40** (22.2)	N/A	N/A
'89 Plan to travel	N/A	N/A	.569* (-2.26)
'89 Degree earned	1.07* (2.45)	N/A	N/A
'89 Degree aspirations	1.27*** (9.8)	1.21** (3.58)	1.24*** (4.11)
Reason for career- extrinsic	.949** (-3.66)	.931* (-2.18)	N/A
Reason for career- intrinsic	1.07*** (4.73)	1.08* (2.50)	1.10* (2.90)

[1] Ratio of the odds of attending graduate school due to an a one-unit increase in the independent variable to the odds of not attending graduate school without that change. Numbers in parentheses indicate the ratio of the regression coefficient to its standard error. *** $p<.0001$. ** $p<.001$. * $p<.05$

Table 3: Odds Ratios[1] for Unblocked Variables DV= Attended Graduate School

Variable Name	Low-SES Students (n=1179)	High-SES Students (n=1406)
1985 Degree Aspirations	1.08 (1.35)	1.12 (1.94)
SES	.972 (-1.11)	1.05* (2.13)
African-American	1.46 (1.07)	.830 (-.423)
Sex-Female	1.32 (1.75)	1.20 (1.25)
SAT Math	1.00* (2.22)	1.00* (2.20)
SAT Verbal	.998 (-1.60)	1.00 (.200)
Public University	.924 (-.433)	1.21 (.998)
Selectivity	1.00 (1.88)	1.00 (1.55)
Peer SES	.975 (-.608)	.998 (-.033)
Guest in Profs. Homes	1.00 (.056)	1.06 (.434)
Worked on Prof.'s Research	1.65* (2.72)	1.05 (.338)
Assisted fac. in teaching	1.26 (1.08)	.956 (-.238)
Participated in intercoll. sports	1.61* (2.73)	1.00 (.038)
'89 hpw studying	1.02 (.548)	1.06 (1.23)
'89 hpw talk to fac. out. class	1.16 (1.75)	1.01 (.125)
'89 hpw volunteer	.925 (-1.29)	1.06 (1.23)
'89 hpw student clubs	1.05 (1.18)	.956 (-1.10)
College GPA	1.42*** (4.28)	1.13 (1.45)
'89 Plan to attend college FT	1.46 (1.76)	1.62* (1.96)
'89 Plan to attend grad. sch.	11.69*** (10.01)	22.30*** (14.55)
'89 Plan to travel	1.00 (.0009)	.575* (-2.17)
'89 Degree earned	1.13 (1.86)	1.14 (1.69)
'89 Degree aspirations	1.21** (3.5)	1.25*** (4.15)
Reason for career- extrinsic	.911* (-2.73)	1.00 (.089)
Reason for career- intrinsic	1.09* (2.50)	1.09* (2.64)

[1] Ratio of the odds of attending graduate school due to an a one-unit increase in the independent variable to the odds of not attending graduate school without that change. Numbers in parentheses indicate the ratio of the regression coefficient to its standard error. *** p<.0001, **p<.001, *p<.05

Appendix A
Variable Blocks

Dependent Variable= Attended Graduate School

Pre-Test

1985 Degree Aspirations

Input Block

Race
Sex
SAT Math
SAT Verbal
SES

Institutional Characteristics Block

Public Univ.
Private Univ.
Private College
Public College
Selectivity
Peer SES

College Investment Block

Guest in Prof. Home
Attended Recital
Worked on Prof. Research
Assisted Faculty Teaching Class
Took Part in Intercollegiate Athletics
HPW Studying
HPW Reading for Pleasure
HPW Talking w/ Faculty Out. Class
HPW Volunteer
HPW Student Clubs/Groups
College GPA

College Conversion Block

89 Plan Attend College
89 Plan Attend Grad School
89 Plan Travel
89 Plan Volunteer Work
Highest degree earned in 1989
Degree Asp. 1989
Reas. for Career Intrinsic-=Interesting Work, Challenging Work, Contrib. to Society, Opp. for Freedom of Act.
Reas. for Career Extrinsic-=Job Opps, Pays Well, Opp. for Advancement